



University of Hawaii at Manoa

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February 22, 1984
RP:0037

State of Hawaii
Department of Health
Environmental Protection and
Health Services Division
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Sir/Madam:

NPDES Permit No. HI 0000019
Kahe Generating Station
Ewa, Oahu

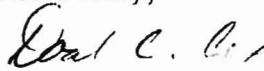
We have been assisted in this review by Frank Sansone, Oceanography; Jacquelin Miller and Antonio De Oteyza, Environmental Center.

The requested modification to Hawaiian Electric's present NPDES permit would permit HECO to discharge free available chlorine and total residual chlorine in their condenser effluent discharge at Kahe, and metal-cleaning wastes including high levels of copper (1.0 mg/l) and oil and grease (20 mg/l) from the Honolulu plant.

Recent research on the unusual persistence of free available chlorine in Hawaiian waters (copy of paper attached) indicates that it is a much more persistent and serious pollutant than previously believed and that significant impacts on the marine ecology may result from the discharge. Considering the volume and location of these discharges we find the potential for significant environmental detriments to be very high. The coastal reef fauna at Kahe could be affected. The copper and other wastes to be discharged into Honolulu Harbor could well effect the phytoplankton community and thus the bait fish population of the harbor.

As a result of the potential harmful effects of free available chlorine at Kahe Station and copper discharge at Honolulu Station a daily or at least weekly monitoring program for these chemical species should be consider in place of the quarterly checks proposed. In accordance with the new findings about the behavior of free available chlorine in Hawaiian waters, a longer monitoring period for this constituent of the discharge should be consider. In conclusion, we would strongly urge that further study of the potential impacts of these discharges be conducted prior to making a decision on the requested modification of HECO's NPDES discharge permit.

Yours truly,


Doak C. Cox
Director

cc: OEQC
Frank Sansone
Jacquelin Miller
Antonio De Oteyza